IN THE CLAIMS:

Please amend the claims as follows:

1. (**Previously Presented**) An actuating system for actuating a member, the actuating system comprising:

a computer;

an electric motor controlled by the computer, wherein the computer is configured to regulate a current supplied to the motor as a function of a setpoint position of the member to be actuated;

a transmission device for transmitting a movement of the motor to the member, wherein the transmission device comprises an encoder that is dependent on the movement of the motor, said encoder comprising a main multipolar track and a singularity that is indexed to a reference position of the encoder;

a fixed sensor comprising at least two sensitive elements arranged to face the main track across an air-gap defined between the fixed sensor and the main track and at least one sensitive element designed to detect the singularity, the fixed sensor being designed to deliver two square digital position signals in quadrature, wherein the signals are representative of a position of the encoder;

a processing device for processing the signals, the device comprising counting means for determining, from an initial position, an actual position of the encoder, and means which, upon detection of the singularity, assigns the reference position as the initial position; and

a comparison device for comparing the actual position of the encoder with a theoretical position of the encoder that corresponds to the applied setpoint position.

Claim 2. (**Canceled**).

3. (**Previously Presented**) The actuating system according to Claim 1, wherein the main track of the encoder is provided with the singularity and comprises a plurality of multipolar tracks, and wherein at least one sensitive element delivers a digital signal that comprises a pulse.

4. (**Previously Presented**) The actuating system according to Claim 3, wherein each multipolar track is formed of a magnetic ring on which magnetized north and south poles are equally distributed with a constant angular width therebetween, the magnetic singularity of a top track of the plurality of multipolar tracks is formed of two adjacent poles, the magnetic transition of the top track being different from a remainder of the plurality of multipolar tracks.

5. (**Currently Amended**) The actuating system according to Claim 1, wherein the sensitive elements of the fixed sensor ~~are~~ comprise one of Hall probes, magnetoresistors and giant magnetoresistors.

6. (**Previously Presented**) The actuating system according to Claim 1, wherein the transmission device comprises a rotor of the motor on which the encoder is mounted.

7. (**Previously Presented**) The actuating system according to Claim 1, wherein the transmission device comprises a reducer on a rotor on which the encoder is mounted.

8. (**Previously Presented**) The actuating system according to Claim 1, wherein the transmission device comprises a rotor provided with a pinion and a part provided with a rack, wherein the rack and pinion are designed to transform a rotary

movement of the rotor into a linear movement of the part, and wherein the encoder is associated with the part.

9. (**Previously Presented**) The actuating system according to Claim 1, wherein the transmission device comprises a stop designed to interrupt the movement of the motor in a reference position of the encoder, and wherein the processing device comprises means which, upon interruption of the movement of the motor, assigns the reference position as an initial position.

10. (**Previously Presented**) The actuating system according to Claim 1, wherein the comparison device comprises alert means which, upon determination of a significant difference between the actual position and the theoretical position, emits a signal indicating an anomaly in operation of the actuating system.

11. (**Previously Presented**) The actuating system according to Claim 1, wherein the comparison device comprises an actuation feedback loop, which is controlled as a function of the determined difference between the actual position and the theoretical position.

12. (**Currently Amended**) A method of actuating a member using ~~the~~ an actuating system including a computer; an electric motor controlled by the computer; a transmission device for transmitting a movement of the motor to the member; a fixed sensor designed to deliver signals representative of a position of the encoder; a processing device for processing the signals; and a comparison device comprising alert means which emits a signal indicating an anomaly in operation of the actuating system ~~according to Claim 10~~, wherein the method comprises the following iterative steps:

inputting a setpoint position of the member into the computer;

determining ~~the~~ an actual position of the encoder;

comparing the actual position of the encoder with ~~the~~ a theoretical position of the encoder that is applied to the setpoint position; and

activating the alert means when ~~the~~ a difference between the actual position and the theoretical position is greater than a predetermined threshold value.

13. (**Currently Amended**) A method of actuating a member using an ~~the~~ actuating system including a computer; an electric motor controlled by the computer; a transmission device for transmitting a movement of the motor to the member; a fixed sensor being designed to deliver signals representative of a position of the encoder; a processing device for processing the signals; and a comparison device comprising an actuation feedback loop ~~according to Claim 11~~, the method comprises the following iterative steps:

inputting a setpoint position of the member into the computer;

determining ~~the~~ an actual position of the encoder;

comparing the actual position of the encoder with ~~the~~ a theoretical position of the encoder that is applied to the setpoint position; and

if ~~the~~ a difference between the actual position and the theoretical position is greater than a predetermined threshold value, controlling the feedback loop to apply to the computer a setpoint position that is slaved to the difference.

14. (**Previously Presented**) The method according to Claim 12 or 13, comprising a step prior to determining the initial position of the encoder during which the motor is supplied with the current to position the encoder in the reference position,

wherein during the prior step the reference position is assigned in the processing device as the initial position.

15. (**Currently Amended**) A method for actuating a fuel supplying device ~~which meters an amount of fuel supplied to a heat engine~~ utilizing ~~the~~ an actuating system including a computer; an electric motor controlled by the computer; a transmission device for transmitting a movement of the motor to the member; a fixed sensor designed to deliver signals representative of a position of an encoder; a processing device for processing the signals; and a comparison device for comparing an actual position of the encoder with a theoretical position of the encoder that corresponds to an applied setpoint position, ~~of Claim 1~~ the method comprising the following steps:

providing a heat engine;

actuating the device; and

using the actuating system to supply a metered amount of fuel from the device to the heat engine.